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THOMAS JEFFERSON UNIVERSITY AND MEDICAL COLLEGE

ariel

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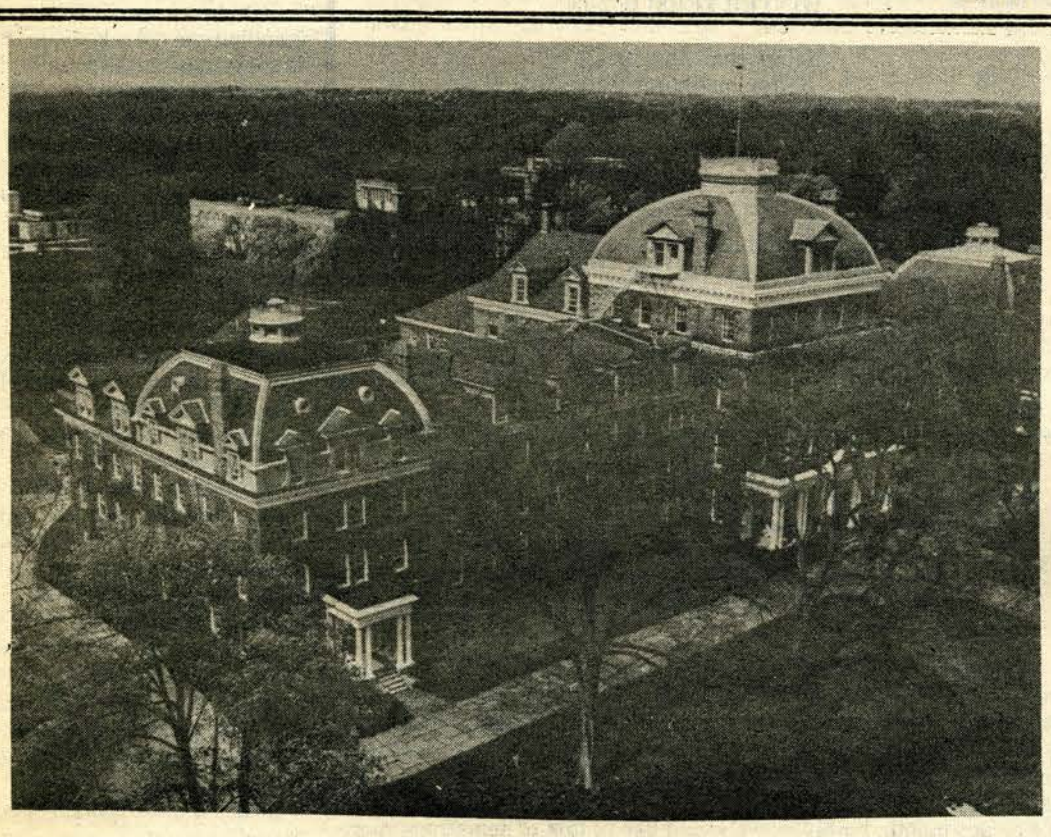

A Visit to Jefferson's Department of Theoretical Physics

by J. D. Kanofsky and J. D. Amsterdam

It was a rainy Wednesday. At the stroke of noon we set off on our mission: equipped with two Japanese cameras, a pad of paper, and three waterproof pens. We relied on the Pennsy Suburban Line to get us safely to our destination, and arrived at the outskirts of Swarthmore College shortly before two o'clock - boots a bit waterlogged and clothes mighty damp. Who would have thought that our alma mater - Thomas Jefferson University should extend to such an unlikely spot. Yet, indeed it does!!

Bartol Research Foundation houses one of the finest physics departments in the country. It offers only a doctoral degree in physics, and every one of these graduate certificates is inscribed with the words "Received from Thomas Jefferson University - Bartol Foundation." How and when did this association with Jefferson come about?

For many years Bartol has been acclaimed as an international authority in such esoteric fields as cosmic radiation, nuclear structure, and surface physics.

In 1968 a decision was made by the directors of Bartol to initiate teaching program at the Foundation. It was felt that highly qualified graduate students would encourage intercommunication among the Bartol faculty, and that they would also serve as an enthusiastic and high spirited source of innovative ideas. The only trouble was that Bartol Foundation itself did not have a charter that would enable it to grant a doctorate in physics.

Coincidentially, at this same time, Jefferson Medical College was on the verge of securing a university status. To acquire a department of theoretical physics could only enhance any future plans for growth and development toward which the fledgling university aspired. Therefore, it was decided that the two institutions should merge. Bartol could now grant graduate degrees and Jefferson would have the services of a high powered theoretical physics department.

Dr. Baldridge, Dean of Graduate Studies at Jefferson, informed us that there are approximately ten graduate students presently earning a doctoral degree at Bartol. Last June, Jefferson awarded its first graduate degree in physics. In June of '73 Mr. C. A. Papageorgopoulos, working in the field of analytical surface physics, will be the second Jefferson graduate to receive a PhD from Bartol. To date, there has been only one Bartol graduate student who has participated in any of the courses offered at the Philadelphia campus, but many more are anticipated in future years. Dean

(Continued on page 6)

Young Lawyers and Doctors Mount Drug Education Project

The American Bar Association announced today the formation of a statewide drug abuse education project making use of the expertise of young lawyers and doctors as well as students in these fields.

The project is basically directed at high school and college students although programs have been planned for community organizations and parents' groups.

The project is funded under a grant from the Law Enforcement Assistance Administration and is the result of several years of experimentation with various types of drug education programs.

Peter A. Levin, a Philadelphia Assistant District Attorney, has been named as chairman of the project for Pennsylvania. Levin is a specialist in drug rehabilitation and education programs and conducts a course on drug abuse problems for medical and law students.

According to Levin, he has had a problem in finding enough lawyers and doctors knowledgeable in the area of drug abuse and thus plans to set up a training institute for them on drug abuse problems.

The project is designed to make available in all junior and senior high schools in Pennsylvania an effective and accurate drug abuse education program. The attorneys and doctors involved in the project will also acquire and consolidate information about drug abuse education programs now in use in each community and evaluate their effectiveness.

According to Levin, it is of fundamental importance that man has and will inevitably continue to have potentially dangerous drugs at his disposal, which he may either use properly or abuse. "Neither the availability of these drugs nor the temptation to abuse them can be eliminated."

The fundamental objective of a modern drug abuse program, Levin feels, must be to help the students learn to understand these drugs and how to cope with their use in the context of everyday life. "An approach emphasizing suppression of all drugs or repression of all drug users will only contribute to national problems."

Any present or future lawyer or doctor interesting in working on this project is requested to write Levin immediately at the *Philadelphia District Attorney's* Office of:

Peter A. Levin
Assistant District Attorney
Room 666 City Hall
Philadelphia, Pa. 19107
MU 6-6298.

Jefferson Hospital Cuts Patient Stay By Computer

Hardly a hospitalized patient, going through the diagnostic process, has not complained about the prolonged waiting time for laboratory tests.

Hardly a hospital doctor has not put the pressure on to get back the lab results on a critical patient. And hardly a laboratory technician has not wished he could eliminate the paperwork and concentrate on the actual performance of the test.

Now, Thomas Jefferson University Hospital is attacking all three problems by computerizing its clinical laboratory procedures. The new network, called the System for on-Line Testing and Automated Reporting (STAR), can cut in half the lag from test initiation to the final report. Now partially operational, STAR will attain its full capacity by 1974.

Dr. Heinz G. Schwartz, director of the clinical laboratories, reports the new system can not only reduce the hospital stay of the average patient by getting test results back faster but can also improve the quality of patient care by enabling the doctor to keep a closer watch on changes in test results.

The computer printout gives the physician both the value of the test and a comparable normal value according to age, sex, and other physical characteristics, plus the outcome of previous tests on the patient. Thus the doctor has an on-going, constantly updated record of the patient's progress. Summary reports on the tests performed during the previous six days are also compiled by the computer.

A data retrieval system makes it possible to pinpoint the whereabouts of each test requested and to determine the stage of completion. Results are delivered to nursing stations four times a day, instead of only one, and a test initiated in the morning can be reported by noon instead of at the end of the day.

Dr. Schwartz says the system is specially tailored for Jefferson's high volume of operation and is the most comprehensive of any such system presently available. "One thing the nurses love is the ease of test requesting. . .no more piles of forms to fill out at the end of the day," he reports.

The technician's time is also better spent. Up to 50 percent of his time previously was spent on paperwork, especially report preparation. Now the computer handles everything automatically, with the lab personnel supplying only the raw data from the test.

The system is tied in with Jefferson's huge 360 series computer. The automation program will continue to be expanded so that by 1974, an overall clinical picture of each patient will be maintained by the computer, with instantaneous recall.

AAFP President Made Honorary Member of Family Physicians Society

Susan Uhrmann presenting J. Jerome Wildgen, M.D., President of the American Academy of Family Physicians with a certificate of recognition and honorary membership in the Family Physicians Society of Thomas Jefferson University.

J. Jerome Wildgen, M.D. (Kalispell, Montana), President of the American Academy of Family Physicians, was made an honorary member of Jefferson's Family Physicians Society just before he turned the Presidency over to James L. Grobe, M.D. (Phoenix, Arizona). Acting on behalf of the Family Physicians Society, FPS president Susan Uhrmann, presented Dr. Wildgen with a gold-leaf-engraved certificate of membership. The gesture was in response to the fine presentations and the direction he had given to the Society during his visit to Jefferson on March 15, 1972. Many of his suggestions are being implemented by the Family Physicians Society this year.

Mrs. Uhrmann presented Dr. Wildgen with the certificate at a luncheon held on September 23, 1972, as part of the 25th Annual Convention of the AAFP in New York City. Students were welcome at the Convention. In fact, Susan Uhrmann and FPS advisor, Franklin C. Kelton,

(Continued on page 3)

A Christmas Parable

"Well, Homer, I must leave now. Remember that no one must trespass on this oasis."

"Yes, Boss."

"Are you sure you understand your job? You are to guard this oasis. No one is allowed to enter it or to use anything in it."

"I understand perfectly, Boss."

"Homer, when you have done a good job, I'll reward you. I'll take you to my mountain estate–Abandago."

"Boss I knew you would say that. Believe me, I'll do a good job; and at night, when I dream, I'll dream of when I shall live in Abandago."

"That's fine, Homer. Well, I'll leave now. This arid, hot desert climate withers me. I'm less than half the man I would normally be. Oh yes, one last thing, take this shovel.

"But why, Boss?"

"You'll understand. Farewell, Homer."

Thus Homer was left alone to mind his job in the vast desert wasteland. As he sat down in the shade of a huge coconut tree, he recalled an old desert saying, it went, "Happiness is like a mirage; both are always farther away from you than you think."

"I have caught that mirage and it is real. Although, it may not be happiness, it will lead me to it," Homer thought.

He was scanning the flat horizon when a speck was seen protruding from the monotonous juncture of sky and sand.

Homer watched the speck grow into a spot and from a spot into a figure. Finally, the outline of a man was visible.

A straggler was limping listlessly towards the oasis. However, only when he was within three hundred feet of the oasis did he take notice of it. With a last ditch effort he tried to sprint to the isle of life. But he was too weak and toppled over. This didn't stop him. The body was nearly dead but the spirit lived, it kept life where death would have reigned. Gyrating like a snake he crawled on his belly. One word could be heard from his dehydrated lips. "Water, water" he kept repeating.

"I'm sorry old man but you can't drink here."

Paying no attention to Homer's warning, a sun-roasted hand took hold of the green turf.

Homer instantaneously dragged his victim back onto the barbecuing desert.

"I'm sorry, I'm very sorry but you must stay outside. I'm only doing my job both correctly and capably. But look you're in luck. The trees have cast a shadow on the sand."

Homer picked up the straggler and placed him in the shade.

"You look as if you could use some entertainment to get your mind off your worries. Just keep still and I'll sing and dance for you."

Not only did Homer sing and dance for the straggler but he also played the tambourine for him. Homer was a marvel to watch.

The straggler kept trying to crawl up the oasis and Homer had to dance in between them so as to obstruct the straggler's forward progress.

"You would enjoy the act much better if you would remain still," Homer said.

As the day began to wane, the straggler began to groan. Homer bent down and tried to calm the straggler's convulsions.

"I'm sorry, I'm very sorry, but I must perform my job correctly and capably."

Realizing that his fate could not be averted the straggler relaxed.

Homer continued to stay by the straggler. He sensed the doom that was inevitable from the beginning. Not able to control himself any longer, Homer started to cry. It wasn't a loud bawling cry that a baby emits when it wants it's bottle. It was a low moaning groan that frequents all true mourners. As he cried, tears came from his eyes and dribbled down his cheeks. The straggler saw the tears, saw them drip from the chin onto the sand, there uniting many of the grains into a single ephemeral structure. Forcing all his remaining strength into one final spasm, the straggler lunged his weary head beneath Homer's chin and swallowed three of Homer's tears.

"Achhh, your water it stings," the straggler whimpered and then died.

That night Homer made use of the shovel the boss gave him. He buried the straggler. The next morning another speck appeared on the horizon and was buried by Homer that night.

Many years and many burials have gone by. Whereas at one time the oasis dwelled in the midst of a barren desert, it is now the center of a graveyard.

Homer still expects to go to Abandago, but although he has performed his job, both correctly and capably he has not yet done a good job.

J.D. Kanofsky

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NOTICE

Ariel will be distributed throughout Thomas Jefferson University and to all affilitated hospitals and institutions. Comments and criticism are appreciated and should be mailed to:

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1020 Locust Street
Philadelphia, Pa. 19107
Box #27

THOMAS JEFFERSON UNIVERSITY
UNIVERSITY HOUR SCHEDULE
WINTER TERM 1972-73

Solis-Cohen Auditorium
Jefferson Alumni Hall
Wednesdays 1:00 - 2:00 P.M.

1973

Jan. 10 To be announced.

Jan. 17 Everything you wanted to know about the opera and were afraid to ask. Presentation of the Educational Wing of the Lyric Opera Guild. Sponsored by the T.J.U. Hospital Faculty Wives Club.

Jan. 24 National Football League fantasy (films).

Jan. 31 Eugene A. Moore, Gibbstown, New Jersey, Instructor, Pennsauken Adult School. Topic: Astrology and the Acquarian age.

Medical Ethics: The Right To Know

The medical profession is faced with many ethical issues at the present time; the number of issues is likely to increase in the next few years as the widespread acceptance of abortion is carried over into the field of euthanasia. As future editorials will be discussing these two topics, we would welcome readers' viewpoints on these issues for simultaneous publication.

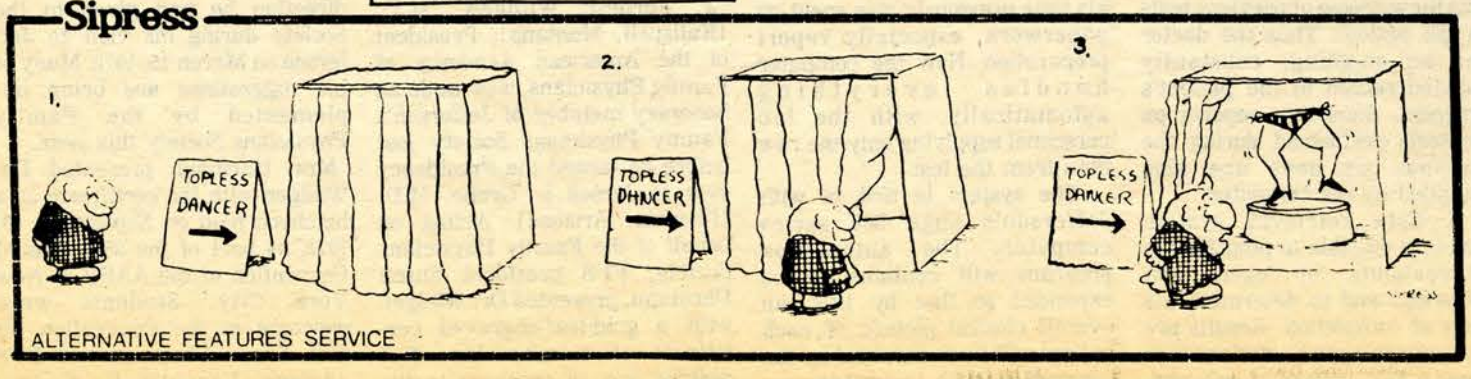
For this month, however, we would like to talk of something more prosaic – honesty with the patient. For better or for worse, many doctors have a tendency to hide from the majority of cancer patients news of their disease while at the same time letting their family know, and through them, their friends. Although the physician is still supposed to be the hired servant of the patient, he lets everyone know the diagnosis but the patient himself, and he so structures the hospital setting that neither medical nor nursing students dare honestly answer the patient's questions about why his broken bones haven't started healing after two months in the hospital.

Yet we wonder why patients won't give informed consent for our procedures or enter the hospital for definitive care when we know that it could save their life. We forget that they have lived when the hospital was where one went to die; we forget that chances are good that they had at least one friend with metastatic breast cancer to whom the doctor repeatedly and in the face of direct questioning denied the presence of cancer – while telling family, and through them friends, that there was incurable disease present!

There is a story about three wealthy men who were told by their doctor that they had only forty-eight more hours to live. The first took his money and proceeded to sleep with every call girl in town; the second took his money, went to the swankiest bar in town, and proceeded to get drunk; The third took his money and said, "Get me another doctor."

How many doctors in American medicine today have the guts to admit to their patient that they can do nothing further? The physician must be a well-rounded man; he must indeed play the role of father-confessor, psychiatrist, and scientist, all the while leaving the patient the results of that professional opinion which he has been hired to give. To do so denies the patient that respect and freedom of self-determination to which he is entitled; it also weakens the credibility of one's professional confreres when they try to give assurance to the patient who is truly disease-free to the limits of our observational abilities or bring to the hospital one who can be helped by our therapeutic advances.

To hide the aged in nursing homes and death in the hospital is a misuse of our national resources as well as counterproductive socially. To those of our population still ignorant of their diagnosis, but yet admitted to the hospital to die under the guise that "We'll get you better," a bit of honesty might help the problem through (1) letting them seek other help if we know that we cannot help them, (2) encouraging us to try heroic measures if they indeed wish to keep fighting, and (3) letting them go home in peace with family present, estate intact, intelligence recognized, and dignity preserved if they do not. As a corollary to (3), we as health professionals might push for third party reimbursement for outpatient diagnostic tests, daily visiting nurses, and even for round-the-clock $10,000 per year Bachelor of Arts nurses for the totally incapacitated terminal patient. At $82 per day it would still be significantly cheaper than a hospital room alone and so much better in terms of the amenities like meaningful care.



"LETTERS TO THE EDITOR"

The Right To Vote

Dear Editor,

Medicine has always impressed me as being a field that people entered who were truly concerned about the welfare of others. At Jefferson, our focus is primarily on what happens in the institution, but nobody seems to care about what is going on in the world outside of this institution.

To be a student in good standing, we must keep our noses to the grindstone and maintain an attitude of apathy in order to survive. This increasing amount of apathy among some of the faculty of the nursing school is what has prompted me to write.

I must be more specific. Let me use Election Day as an example:

A freshman who had to travel an hour's distance to go home to vote was told she must be back in the Residence Hall by 10:30 P.M. to make up for the study hours she missed between 8 and 10 P.M. Was this really necessary?

No one was permitted to cut class to attend political rallies. Couldn't tapes of these classes have been made so girls could have gone, and classes could have been made up?

Juniors and Seniors were given positively no lee-way in handing in weekly assignments and they were bombarded with readings to do which were given to them on Election Day that had to be discussed in conferences on the following day.

It didn't surprise me one bit when I found out that half of my classmates didn't vote because they either didn't have the time to register, the time to vote, or the time to read up on the candidates or the issues.

I hope this letter will reach the attention of the particular department heads who are involved and that they will do something positive to remedy these situations before the next election.

Sincerely

A Concerned Student Nurse

* * *

Emanuel Church Seeks Tutors

Dear Sirs:

Emanuel Church in Southwark Plaza runs a tutorial program. The community contains many school aged children suffering from educational problems. A program to deal with the problems has been initiated. With the help of volunteer workers from the University of Pennsylvania, Temple University, and others who generously give of their time, the program will again this year be a success. The uniqueness of the community and its people prove to be an experience for the tutors as well as the students.

Each of the tutors is responsible for arranging the time of his meeting; with the help of students, teachers, family, and staff, the tutor creates the best method for aiding the student in his school work. Tutoring occurs at the church building, in the home, or at Bethel House, a residence and center for neighborhood ministry.

Emanuel needs people who wish to participate in the program and help the young people of the community. If you're interested call Reverend Cochran or Dery Mackie at Emanuel--any afternoon--and talk about it. The number is DE 6-1444.

—Dery Mackie

What Patients Really Think

From our London pen pal "too mUCH" – the paper of the University College Hospital Medical School.

Mutual understanding between generations on the topic of their respective customs and appearance is a cherishable ideal. In the meanwhile, individuals, as is their wont, continue to hold individual opinions! However, confusion sometimes begins to reign when individuals start suggesting that their view represents the view of some larger aggregate of humanity.

We have interviewed 100 patients in the hospital to try to find out what they considered to be acceptable dress and hair. These included 50 'medical' patients, 40 'surgical' and 10 'obstetric.' Twenty of the surgical patients were interviewed by a member of staff on the Surgical Unit to form a comparison to the results obtained by the six student interviewers. The ages of the patients ranged from 16 to the 80's and there were 39 males and 61 females. Great attention was paid to the wording of the questions since these may very easily lead the patient to answer in a certain way. In presenting the results the actual wording used has been included.

Clothes

The overwhelming majority of patients want to see both medical students and doctors in white coats. Interpretations of this finding may range from the 'expedient' to the 'magical' but the writing is clearly on the wall. On the question of what patients objected to, the order of rejection was 1st. Jeans, 2nd. Roll-neck sweaters, 3rd. sandles, 4th. Cord Levis, 5th. Arty Shirts and lastly 6th. Arty Ties. Approximately 70% of patients objected to one or more of these categories, but there was no difference in their attitudes to medical students or doctors in this respect. However, it should be noted that only for jeans did more than 50% of the sample object to them, for the next highest category–Roll-neck sweaters - 41% objected for doctors and 30% for medical students i.e. a minority of the sample in each case. For the other items the proportions are even lower. Hence 'jeans" are singled out to some extent in comparison to the other items, but even so only 56 of the patients objected to doctors wearing jeans and only 52 objected to medical students wearing them.

GENERAL COMPARISON WITH DOCTORS

Q.4.a) Would you say it is possible to distinguish medical students from doctors if they don't tell you?
Yes 56 No 44

Q.4.B) If yes is this by:-
Clothes 18, Hair 10, Manner 36, Other 4*.
***(Name badges 3, short white coats 1).**
N.B. These are not mutually exclusive, i.e. some patients used more than one way of distinguishing so they do not total to 56.

C. HAIR

Q.5.a) Do you mind male medical students having long hair?
Yes 27 No 73

Q.5.b) Do you mind male doctors having long hair?
Yes 37 No 63

Q.6. Place in order of importance to you the following aspects of hair:-
Placed 1st.
Tidyness 19, Length 10, Cleanliness 68, Style 3.

D. CLOTHES

Q.7.a) Would you prefer male medical students to wear white coats, suits or casual wear (e.g. trousers and jumpers).
White coats 86, Suits 12, Casual wear 2.

Q.7.b) Would you prefer male doctors to wear:-
White coats 88, Suits 3, Casual wear 9.

Q.8.a.) Which of the following would you mind male medical students wearing?
Arty shirts 16, Jeans 52, Sandles 27, Roll-neck Sweaters 30; Arty Ties 13, None of these: 34.
(N.B. These categories (with the exception of 'None of these' are not mutually exclsuve and hence do not sum to 100. Each must therefore be considered as a separate question in which the score is the number of patients out of 66 who did mind that item.)

Q.8.b) Which of the following would you mind male doctors wearing?
Arty Shirts 24, Jeans 56, Sandles 40, Roll-neck Sweaters 41, Cord Levis 34, Arty Ties 18, None of these: 32.
(N.B. As above, each score is the number of patients out of 68 who did mind that item.)

E. WOMEN MEDICS AND TROUSERS

Q.9.a) Would you mind women medical students wearing slacks or trouser suits?
Yes 18 No 82.

Q.9.b) Would you mind women **doctors** wearing slacks or trouser suits?
Yes 22 No 78.

General Comparison with Doctors

Only 56 patients considered that they could distinguish medical students from doctors and of these 36 said it was due to aspects of manner.

Hair

The finding that a significant majority of patients do not object to long hair in either male medical students or male doctors is important. Though the results indicated slightly less enthusiasm for doctors having long hair the difference is not in fact statistically significant. In line with this was the finding that cleanliness of hair was considered by 68% to be priority with tidyness being a poor second and length scraping into third place above style.

E. Women Medics and Trousers

The patients were quite categorical on this question. About 80% said they did **not** mind women medical students or women doctors wearing slacks or trouser suits.

Interviewer Variables

Reference to Table 2 shows that on 5 of the questions there were no significant differences in the replies obtained from students and a doctor while the other 5 questions there were significant differences. In terms of the overall variance in the results this means that interviewer variables were not a significant factor. In terms of the specific questions more patients said they objected to long hair when interviewed by the doctor than by the students. However it was still not a significant number who objected - the net effect being to render the significantly favourable attitude to long hair insignificant, but still not converting it into a significantly hostile attitude. Moreover, the second instance of interviewer difference came in the following question when the doctor interviewer found that 90% of the patients he interviewed considered cleanliness in hair to be of prime importance and only 5% thought length was most important whereas the student results were 62% and 11% respectively.

The other finding was that more patients said they minded 1 or more of the clothing items when asked by the doctor, but this was true for both student **and** doctors' clothing.

Sex

Only 3 out of the 10 questions shown in Table 2 showed that sex was a significant variable. In Question 6 twice as many females as males placed cleanliness first whereas males used tidyness as a priority in 31% of cases. In Question 8 females were much more liberal over clothes than males. Irrespective of whether considering medical students or doctors only about 60% of women patients said they minded 1 or more of the clothes items whereas 80% of men minded 1 or more.

Age

Age seems to have been the principle factor in influencing the replies. 7 out of the 10 questions in Table 2 showed significant age variations. On the question of hair length (Q.5) objection to hair length rose proportionally with age of the patient, although in no case did more than about 40% of patients say they objected to long hair. Concommitently, in Question 6 the proportion who placed Length and Tidyness as a priority rose sharply in the over 50 age group while cleanliness was given a lower priority.

The preference for white coats was marked in all age groups but also showed itself to be significantly correlated with age, with over 90% of the over 50's prefering white coats as compared with 70% of the under 29 group.

Similarly, a marked age trend is apparent in the answers to Question 8. 60% of patients under 29 yrs. didn't mind any of the items listed but only 25% of the over 50's. These figures were the same in relation to both medical students and doctors clothes.

In conclusion it should be noted that very little 'interpretation' of the results has been undertaken. In this enterprise I cordially invite you to take part, by writing letters expounding your individual points of view! Also, there is a considerable amount of information about the patients eg. social class, number of children, which because of pressure of copy date has not been used. Anyone who would like to spend time evaluating these and other variables is very welcome.

We acknowledge with thanks the assistance of the Surgical Unit in providing a 'Doctor' to interview some of the patients.

MIKE SINASON

AAFP (cont'd)

M.D., were invited to participate in the preparation of a 30-minute videotape production entitled **Med Students: Turning them on to Family Practice.** The tape was aired twice over closed-circuit "hotelevision" for physicians and guests participating in the convention. (Over 10,000 attended.)

The convention offered much insight into the direction Family Medicine is taking today. Since Family Medicine became the 20th primary medical specialty in February, 1969, AAFP members have been required to obtain 150 credits every 3 years in order to remain board-certified. Daily lectures, seminars, live-teaching demonstrations, and programmed self-teaching modalities offered a multiplicity of opportunities to obtain credits, for those in attendance. The only discouragement voiced by the participants was that too many interesting items were scheduled simultaneously.

Response towards students interested in Family Medicine was overwhelming at the convention. Representatives from several states and Puerto Rico are corresponding and planning exchange visits with members of Jefferson's Family Physicians Society!

(NOTE: Students interested in joining FPS and at the same time becoming a Student Affiliate Member of the AAFP should write to Family Physicians Society, Box 15, 1025 Walnut Street, Phila., Pa. 19107, or watch for posters and come to the next FPSmeeting.)

Speak Out Article of the Month

Antibiotics: Too Much of A Good Thing

The Washington Post – 12/8/72

Physicians Accused Of Antibiotic Misuse
By Morton Mintz
Washington Post Staff Writer

The great majority of the medical profession was accused yesterday of needlessly imperiling the health and sometimes the lives of millions of patients by massively over--prescribing and mis-prescribing antibiotics.

The grave indictment was handed down by the Food and Drug Administration by a world-renowned specialist in the treatment of infections and by a former assistant secretary of the Department of Health, Education and Welfare.

Testifying before the Senate Monopoly Subcommittee, they also urged drastic reforms to deter physicians from prescribing antibiotics for diseases against which they are ineffective, and for diseases for which safer therapy is available.

Dr. Harry F. Dowling, the infections specialist and a former chairman of the Council on Drugs of the American Medical Association, cited FDA data indicating that doctors prescribe 10 to 20 times as much antibiotics as is medically justified.

"It is doubtful that the average person has an illness that requires treatment with an antibiotic more often then once every 5 or 10 years," he said.

The most popular antibiotics include the penicillins, effective against a narrow range of infections; erythromycin, effective against a medium spectrum, and the tetracyclines and chloramphenicol, effective against a broad spectrum.

The threat to the public health in excessive use of antibiotics arises from the fact that in killing certain strains of bacteria, they permit other strains to flourish. Some of these strains resist treatment by known antibiotics, setting the stage for possible epidemics.

In one of the latest incidents of this kind, said Dowling, professor-emeritus of medicine at the University of Illinois, a strain of typhoid bacilli has been found to be resistant to ampicillin.

"A few years ago, we were resting secure in the knowledge that we had two effective drugs for use in typhoid fever; chloramphenicol and ampicillin," Dowling said.

"Then a strain of typhoid bacilli was found that was resistant to chloramphenicol, and now one is resistant to ampicillin. Where is our security now?" he asked.

"Before too long we may be back to the 1930s when we had no effective therapy for this disease and could only stand by and watch 10 to 15 per cent of the patients die, while others suffered through weeks of serious illness," Dowling warned.

In the 1950s, over-use of penicillin led to hospital epidemics of dread staphylococcus infection. The nick-of-time development of semi-synthetic penicillins brought the situation under control. The FDA has warned that over-use of the semi--synthetics could deny protection against new outbreaks.

Dowling told subcommittee chairman Gaylord Nelson (D-Wis.) of a current related "cause for concern" resistant bacteria are increasing blood poisoning in hospital patients treated with antibiotics.

The former HEW official, Dr. Philip R. Lee, testified that a marked increase in the use of antibiotics in the last four years "is primarily due to irrational prescribing" intended to prevent infections.

Yet, said FDA Commissioner Charles C. Edwards and Dowling, antibiotics used to kill one set of bacteria sometimes create a so-called super infection on top of a pre-existing infection or no infection at all.

Lee, now professor of social medicine at the University of California in San Francisco, was "despairing" that the profession will discipline itself. "I don't think it can contine" to defend "the privilege to prescribe drugs as he alone sees fit," he testified.

"The next round will belong to the consumer," Lee said. Specifically, he said, each package of antibiotics and certain other potent medicines should provide the ultimate user with an FDA-approved statement listing the diseases against which it should and should not be used, the proper dosages, and possible adverse effects.

"The consumer has a right to know the risks he is taking," Lee told Nelson.

Commissioner Edwards, in prepared testimony read in his absence by Dr. Henry E. Simmons, director of the FDA's Bureau of Drugs, pointed out that no medicine is effective against the common cold and other uncomplicated upper-respiratory infections.

Yet, Edwards said, a recent survey shows that physicians prescribe an antibiotic for 31 per cent of the patients who consult them about colds.

Among the two out of three of these patients who got penicillin, some will develop a sensitivity–meaning that future ingestion of that antibiotic can set off reactions ranging from skin rashes to death.

Even now, Edwards said, an estimated 2.5 million Americans have had immediate or delayed reactions to penicillin, including 100 to 300 families annually.

Much of the testimony centered on the record of production, promotion and prescribing of chloramphenicol--a record "compounded in part from complacency, laziness, stupidity, carelessness, deceit and greed," Lee charged.

Parke-Davis introduced the antibiotic as Chloromycetin, in 1949. That same year brought the first of a barrage of published warnings that the drug caused a fatal blood disease in users at a rate since estimated at one in 24,200 to one in 40,500 depending on dosages.

Yet by 1960 physicians had prescribed it for an estimated 40 million persons. FDA production data indicate that more than 600,000 Americans got it in fiscal 1972 alone.

Official FDA prescribing instructions long have warned physicians that chloramphenicol is the preferred drug only against rare typhoid fever and "must not be used in the treatment of trivial infections or where it is not indicated, as in colds, influenza, infections of the throat; or as a prophylactic agent to prevent bacterial infections."

Even so, the FDA's Simmons said, physicians today prescribe chloramphenicol "inappropriately" in an "overwhelming majority" of cases.

Nelson, recalling expert testimony from 1967 hearings that up to 99 per cent of those who get chloramphenicol should not, called the situation "an emergency."

The FDA said that it began this week to set up a national task force on the clinical use of antibiotics, implementing a recommendation by its outside advisers on infections.

The Lancet 11/4/72

ANTIBIOTICS AND IMMUNODEFICIENCY
J.A. RAEBURN
University Department of Therapeutics, Royal Infirmary, Edinburgh EH3 9YW

Summary

Immunological-deficiency syndromes were not observed before 1952. A possible explanation is that some of these conditions are produced by administration of antibiotics to certain individuals at a critical point in the development of immune responses. Likewise, some infected patients who have serious debilitating diseases may suffer progressive infection as a result of antibiotic therapy. The clinician must consider the possibility of adverse effects on the immunological system whenever he prescribes an antibiotic.

Theoretical Evidence

The control of invading bacteria is a major activity of the immunological system. Removal of bacteria by other means, such as rapidly effective antibacterial therapy, could have profound effects–for example, in infancy, during immunological development. If all patients received benzyl-penicillin at the onset of streptococcal infection, anti-streptococcal antibody would become a rarity.

Even if antibiotics do not eradicate bacteria, they may interfere at many stages of the immune process. Could antibiotics alter bacterial antigens so that normal antibodies cannot inactivate them? Could they act on commensals, producing new antigens no longer recognizable as friendly? There are countless other ways in which antibiotic therapy could interfere with immunity, some of them specific to certain antibiotics, others being general. The rarest clinical effects will emerge sooner or later because antibiotics are so widely used.

Clinical Evidence

Despite the abundance of antibacterial agents, bacterial infection remains common. Antibiotic resistance is an important factor, but patients still die of infection despite therapy to which the organism is fully sensitive. Refractory infections occur particularly in patients with leukemia and other malignant diseases, or in patients receiving immunosuppressive therapy. In agammaglobulinaemic patients, antibiotic therapy alone is rarely successful–which argues against the supposition that antibiotics can prolong an immunodeficient patient's life. The main beneficial effect of antibiotics has been on acute infections in previously healthy individuals.

Failures of antibiotic therapy are often excused by an assumption that host resistance was impaired. Could it be that infection persisted because the antibiotic interfered with host resistance in a susceptible patient? I have seen several patients whose infection progressed while they were receiving seemingly appropriate antibiotics. Perhaps antibiotics contributed to the progression of infection, by an immunotoxic effect.

Laboratory Evidence

For many years it has been known that antibiotic therapy of acute infections reduces the antibody level attained. It is assumed that successful therapy reduces the antigenic load and so less antibody is required. Nevertheless, the patient will subsequently be more susceptible to infection. Stevens found that tetracyclines, dihydrostreptomycin, and benzylpenicillin could all reduce the primary immune response in rabbits. He also noted that, although each treated group differed significantly from normal, only a proportion had pronounced immune suppression; others in each group had little or no change. Perhaps some individuals are susceptible to the immunotoxic action of antibiotics while others are not.

In a pilot study of the function of granulocytes during antibiotic therapy, I found reduced intracellular killing of staphylococci in some individuals receiving antibiotics. Since this effect has not been reproduced in vitro when antibiotics are added to the test system, a direct toxic effect is unlikely.

Discussion

In view of the obvious successes of antibiotics therapy, the belief that immunodeficient patients now survive longer is not surprising. In addition, since the specific diagnostic tests became available only recently, it is argued that immunodeficiency would not previously have been recognized. However, sixty years ago any agammagloboulinaemic patient would have had a low opsonic index–a finding which probably indicates IgG deficiency. As early as 1908 infants were found to have a low opsonic index which fell, from birth to three months, before subsequently rising. This correlates well with the changes in IgG in the first year of life. In 1909, the opsonic index was also studied, but this time in 1000 sera from patients with various infections. The low levels typical of infants did not occur, so all the patients studied must have had significant amounts of IgG.

Studies of agglutinins during infections would also reflect immunoglobulin levels. When specific agglutinins were measured in 121 patients who had brucellosis (in 1899), it was found that low levels or levels which dropped indicated a poor prognosis. In this investigation, and others, the importance of absent agglutinins during infection was certainly appreciated. Nevertheless, persistently low or absent agglutinins were not reported.

There are features of chronic granulomatous disease which pathologists would have recognized early in this century–in particular, the presence of granulomata with pigmented lipid histocytes. The association of such lesions with pyogenic bacteria and not Mycobacterium tuberculosis would surely have been noteworthy. Although this survey of reports published before 1940 is not complete, it does seem that the physicians then were alert to the possibility of immune deficiency, had the necessary diagnostic tools, and yet did not report it.

Antibiotic therapy is not the only cause of immunodeficiency, for family studies demonstrate a genetic basis. However, antibiotic administration at a critical time to a genetically prone subject might preciptiate the disease. Antibiotics may also affect immune function in patients where this is already depressed because of underlying disease. In patients with neoplastic diseases who have granulocytopenia, experience has shown that antibiotic therapy must be restricted.

The hypothesis that antibiotics precipitate immunodeficiency could be tested, in the first place, by noting the antibiotic therapy within preceded diagnosis of immunodeficiency. Unfortunately one of the most detailed studies of hypogammaglobulinaemia does not record the timing of chemotherapy in relation to diagnosis. In contrast Bruton's patient had received penicillin (600,000 units daily for 28 days), sulphoramides (1 g. daily), and penicillin intermittently for several months, and finally, sulphonamide continuously for two years before agammaglobulinaemia was looked for or discovered. A group of patients who could be studied prospectively would be young children with cystic fibrosis. Since screening tests can now identify this disease at a very early age, and since prophylaccic chemotherapy is widely used, some such patients may be at risk of immunodeficiency. The demonstration of an opsonic defect in fibrocystic patients supports the hypothesis.

If this theory is substantiated, it follows that antibiotics should be reserved for life-threatening infections, until the risk of immunotoxicity is excluded in each patient. In years to come, the story of antibiotics may rank as Nature's most malicious trick.

Dr. Morgan Speaks Out

To The Editors:

I noticed with interest the reprint of the **Time Magazine** article on transcendental meditation in the **Ariel** Monday, Nov. 20, 1972. I am about to embark on research applying meditational techniques with the elderly and have been appointed chairman of a task force of the American Psychiatric Association Research Council to study meditation in psychotherapy.

As a psychiatrist practicing in Philadelphia, I would be most pleased to have my letter to the local Students International Meditation Society chapter reprinted at this time.

Psychiatry has always been interested in the various states of consciousness of which the mind is capable. The psychoanalytic literature contains articles occasionally which set forth theoretical constructs attempting to explaining these states are achieved and how awareness changes. Recently Zen meditation and conversion experiences and drug-induced states have been examined in the light of psychoanalytic knowledge. The qualities of concentration, renunciation, sensory deprivation appear in various degrees in all of these experiences.

Transcendental meditation is unique in my experience. The emphasis is placed on life-in-the world rather than on any achievement in the meditative state itself. Also unique is the effortlessness of the meditation itself which does not require concentration or work of any kind, and in which thoughts are not seen as disturbing or distorting but as acceptable evidence of the dissolution of stress. Finally the lack of any requirement of faith or religious tenets or even rudimentary belief in the system to produce effects in the life of the meditator, set it apart.

I am impressed and delighted by the gentle and tender way transcendental meditation treats the mind. Nothing is gross, nothing forced. It most carefully and sensitively allows the mind to seek more profound depths of strength and breadth.

I began to meditate with skepticism and doubt. When the fragile method was taught to me it seemed impossible that this delicate way to relax twice a day. I began because the concensus of the testimonies I heard was too unanimous to be rejected and compelled me to try it firsthand. It was clear that there could be no danger in such a natural, delicate and guileless procedure and so I began, expecting nothing. The effects were as others reported. They were immediate and increased in time. I began to feel more alert and awake at work and even through the evenings after particularly busy days. I no longer say, "What a grueling day" even though I am now doing much more than I had previously. Work just doesn't seem tiring. I have more energy with which to relate to people, and not feeling drained, I no longer feel put upon by the endless details and trivia with which I frequently must deal.

My subjective experiences in meditation vary from day to day and I can see no correlation between the effects in my life and my mental content in meditation. Most of the time absolutely nothing "happens" while I sit with my eyes closed. Either there are a lot of thoughts about current concerns or just a sense of quietness. Occasionally there are some muscle twitches similar to the ones that occur when falling asleep. Feelings do not differ from ordinary life although they are more subtle. If I were meditating for the experiences of meditation I would eventually give it up, as pleasant as it is. I have much too much to do to spend twenty minutes twice a day sitting with my eyes closed while my mind wanders. However, what the meditation does to my ordinary life is extraordinary and most welcome.

The possible uses of the technique as an adjunct to psychotherapy are exciting indeed. I cannot imagine any possibility of harm to any patient if meditation is practised as taught. The general reduction in tension and increased alertness should compliment any psychotherapeutic procedure.

The study by Dr. Glueck at Hartford is eagerly awaited and I expect that transcendental meditation will emerge as a most welcome addition to our therapeutic armamentarium.

A. James Morgan, M.D.

Hospital Gown

by Ruth Perry
(a patient at Jefferson Hospital)

In this up and coming nation
There's no great tribulation
When you've had an operation,
Than a **Gown!**

For it ties with rear-view latching,
And there's seldom two ties matching;
Though it's clean it's fraught with patching,
What a gown!

(2)

There is nothing less concealing,
All one' "Nether-end" revealing:
Nothing chic nor eye-appealing
In a Gown!

Up and down the open spaces
Such an icy shiver races
And there's knots in all the laces;
Darn the Gown!

(3)

Though the garment's old and chilly,
One must wear it, willy-nilly;
Make believe that it's a "dilly"
Of a Gown!

When again I'm fit and able,
I shall dress in silk and sable
And to gorgeous Betty Grable,*
Send the Gown!

* * * * * * *

*Her limbs take to exposure better than mine!

Jefferson Screening Begins Programs For Tay-Sachs Disease

Dr. Laird Jackson (right), Director of Jefferson's Division of Medical Genetics, watches as a woman is being tested at the first community screening program for Tay-Sachs disease in the Delaware Valley area.

by Philip Nimoityn

Thomas Jefferson University has begun one of the country's first and most ambitious mass screening programs designed to prevent a genetic disease. The disorder is Tay-Sachs disease, a degenerative disease of the central nervous system which afflicts Jewish children of Eastern European or Ashkenazic ancestry. The objects of the program are to identify those couples with a high risk of producing a Tay-Sachs child, and to offer them genetic counseling so that they can have as many normal children as they wish.

The first screening was conducted at the Germantown Jewish Center on Sunday, November 12, and 800 persons were tested. Over 2400 individuals were tested on Sunday, December 10, at Beth Emeth Congregation in Northeast Philadelphia. The overwhelming turnout set a national record. A screening is being planned for persons affiliated with Thomas Jefferson University, but a definite date has not yet been set.

Tay-Sachs disease was first described in the 1880s by Warren Tay, a British ophthalmologist, and Bernard Sachs, an American neurologist. The disease results from the accumulation of fatty substances known as sphingolipids in the brain cells of affected children due to the absence of the enzyme hexosaminidase A. The child with Tay-Sachs disease appears normal until about six months of age. Rapid brain deterioration then results in blindness, a loss of physical skills, seizures, and severe mental retardation. Death usually occurs by four years of age.

One out of every thirty Ashkenazic Jews is a carrier of the recessive gene responsible for Tay-Sachs disease. This means that there are about 13,000 carriers of the gene in the Delaware Valley area. Carriers of the gene are perfectly normal individuals, and a Tay-Sachs child can be born only if both parents are carriers of the gene. Because one in thirty Jews is a carrier of the gene, one in 900 marriages will be between two carriers. If both parents are carriers, there is a one in four chance in each pregnancy that the child will have Tay-Sachs disease. This means that approximately one out of every 3600 Jewish born has Tay-Sachs disease. Two to four Tay-Sachs births are reported in Pennsylvania each year, but there are probably more that are not reported.

Many couples have asked why both husband and wife are being tested, since a negative test on one of them would exclude the possibility of having a Tay-Sachs child. Both husband and wife are being tested so that relatives can be notified if either is a carrier.

Tay-Sachs disease is the first genetic disease to be the subject of a major prevention program. This is because it is the first genetic disease to meet all three criteria for a successful program: the high-risk population is easily identifiable; there is a reliable, simple, and inexpensive method for identifying carriers; and the disease is detectable in utero. When more genetic diseases meet these criteria, other screening programs also will be possible. The Tay-Sachs program can then serve as a model for preventing other genetic diseases.

The first Tay-Sachs screening program was organized in the Washington-Baltimore area by Dr. Michael M. Kaback of Johns Hopkins University, and some programs have been started in other cities. The program in this area is sponsored by the Delaware Valley Chapter of the National Tay-Sachs and Allied Diseases Association, and the Division of Medical Genetics of Jefferson Medical College. The program is being headed by Dr. Laird Jackson, director of Jefferson's Division of Medical Genetics. Dr. Jackson, who is an Associate Professor of Medicine, Pediatrics, and Obstetrics and Gynecology, started Jefferson's Genetic Counseling Unit in the early 1960s. The unit has become highly regarded and is one of the busiest centers of its kind in the country.

Each screening is organized by the community and staffed by volunteers. The Federation of Jewish Agencies and Einstein Medical Center, Northern Division, as well as other organizations, are recruiting volunteers for the program. Several freshman medical students at Jefferson are involved in the program. "The success of the Tay-Sachs Prevention Program depends solely on the response and participation of the Jewish community," comments Dr. Jackson. He adds that "the answer lies in educating the public." Most Jews in this area had never heard of Tay-Sachs disease until the program began. Now the situation is vastly improved, and the efforts to educate the public will continue. "If the enthusiasm continues," notes Dr. Jackson, "we'll stand a good chance of ridding the Jewish population in this area of this devastating disease."

A blood sample is taken from each person, which is then analyzed at Jefferson for hexosaminidase A. Carriers have one half the amount of the enzyme that non-carriers do. If both members of a couple are carriers they will receive genetic counseling, and an amniocentesis will be recommended for each pregnancy. Tests can then determine whether or not the fetus is afflicted with Tay-Sachs disease. If it is affected, an abortion can then be considered by the parents. Husbands of women up to their fourth month of pregnancy can be tested for carrier status. If the husband is a carrier, a different type of blood test is performed on his wife since the regular test is not reliable during pregnancy.

Questions concerning the screening program can be answered by calling the Tay-Sachs Prevention Program at 829-8320.

A Celluloid Society: "Play It As It Lays"

by Joe Conti

Los Angeles and more acutely, Hollywood, embody a behavioral phenomenon known as "California cool," a restrained unemotional hipness that enables people to avoid any meaningful but vulnerable relationships. This concentrated dose of cool is due, in large part, to the fact that Hollywood is the center of the film industry, the source of illusion and fantasy and the major purveyor of trends for the rest of America. The individual involved in the task of producing films, whether he be an actor, director or producer, can find his reality merging with the surreal, exposing himself to the very limits of sanity and a questioning of values.

Frank Perry's film, **Play It As It Lays,** (currently playing at the Stage Door Cinema) concerns itself with the above situation. He has managed through the use of specific images to capture the sterile oppressiveness of L.A. The smog, the freeways, the traffic, the parties–all provide a background for the deterioration of human relationships. The film becomes not so much an indictment of a geographical culture, but more importantly, a commentary on the real tragic effects the culture has on people.

The film is composed of the impressions and recollections of a beautiful but fragile actress, Maria (pronounced Mar-eye-a) Lang portrayed in a very strong performance by Tuesday Weld. She recalls various incidents that eventually force her to seek the sanctuary of a mental institution.

Her flashbacks center on her relationships on two characters, her husband, Carter, who is a film director, and BZ, who is a producer.

The salient aspect arising from these relationships is the concept of acting versus reacting. Both Carter and BZ are acting (and playing) out their lives.

Carter is the avant-garde director who is concerned with his public image. His most effectual communication with Maria is seen in film clips which are from a documentary he made about a day in the life of his wife. For Carter, film is life is film, and when Maria no longer wishes to be an actress, he cannot communicate with her.

BZ, the producer, is (under) played with a subtle excellence by Anthony Perkins. BZ is already in the terminal stages of vacuous existence, just going through the motions of life. He is aware of the inevitable and makes a feeble attempt at a relationship with Maria, but to no avail.

Throughout the film, Maria is desperately trying to react to life, to break on through to the other side, but the barrier of cool inhibits this. There are graphic scenes in which this inability is all too real. In one scene, where she undergoes an abortion that is the epitome of "cool" as it exists in the doctor and the contact. In another scene with her retarded daughter, again the sterile environment stops her from realizing any joy. The other scenes also contribute to her isolation.

Ultimately, Maria realizes that BZ was always on the verge of discovering but not quite knowing. In the last scene, Maria in the safety of a garden states, "I know what 'nothing' means and I keep on playing. 'Why' BZ would say. 'Why not'. I say."

In other words, Maria has been able to become aware of the plight of her situation. Somehow through all the unreality of her surroundings, Maria has remained a very real and sensitive person.

In closing, the film is not very fluid in terms of editing transitions, but this only contributes to the overall disturbing atmosphere of Maria's personality. The film is very much Maria's story and, as such, is Tuesday Weld's showpiece (she is in almost every scene if not all) and yet Perry was able to get strong performances from everybody. I recommend the film for anyone who wants to experience a different and disturbing view of life in what the great rock and roll man Chuck Berry once called "the promised land."

Country's First Computerized Medical Exams To Be Launched at Jefferson

Jefferson Medical College has received an $18,000 grant from the Merck Company Foundation to develop the country's first computerized examinations for medical students.

The computer would devise questions, grade tests, give a faculty member more time to teach and make student evaluation more meaningful.

The grant by the Rahway, N.J. pharmaceutical firm is part of a new medical education program aimed at achieving qualitative advances in the educational experiences of physicians and health-related personnel. A total of $943,000 has been committed under the new program, part of an overall total of $5.2 million granted by the foundation in support of medical education since 1957.

Eventually, says Dr. Joseph S. Gonnella, director of the Office of Medical Education at Jefferson Medical College, the computer would supplement or replace all individually administered paper and pencil tests.

The system, called Computerized Evaluation of Learning (CEL) has many advantages. For example, the student would no longer be obliged to cram for examinations which are poorly spaced in time. "Students frequently find three or even four major examinations planned within the space of a single week to be followed by weeks of relatively little testing," Dr. Gonnella said.

Under DEL students would take computerized exams at their own pace, taking several examinations consecutively if they wished or only portions of individual exams.

By determining early their areas of deficiency, they could improve their study habits and identify topics requiring special attention, Dr. Gonnella noted. Students with advanced knowledge in certain subjects could present themselves for individual examination and proceed through the medical school more rapidly.

Items on the computer would be graduated in terms of difficulty. And the computer would stop when a student indicates insufficient knowledge to be able to pass at an acceptable level.

As a by-product of the system, a student complaining that the examination material is too trivial, could interrogate the computer for clinical application of the information he's required to absorb.

The machine would also be able to repeat material covered in other tests to see how well students retain what they have learned.

Students would be provided with immediate feedback such as detailed bibliographical listings for missed items, branching of items in terms of difficulty, and discontinuance of an examination when a student's maximum level of understanding has been determined. It would also deliver guidance for those concerned with curricular development.

The first phase of the project, Dr. Gonnella said, will be to develop computer programs for existing examination items for the purpose of information retrieval.

The grant was presented to Dr. William F. Kellow, dean and vice president of Jefferson Medical College, by Rolland J. LeTourneau and Richard E. Kiefner, of Merck, Sharp & Dohme.

Physics (cont'd)

Baldridge envisions a day when closed circuit television will allow for easy transmission of lectures and ideas between the two campuses.

Dr. Kent, Associate Professor of Physics, and one of the primary liasons between Jefferson proper and Bartol, was our travel guide during our expedition through the Research Foundation. He explained to us that there is no affiliation between Bartol and Swarthmore College, even though Bartol's facilities happen to be located in the middle of the Swarthmore campus.

Every summer Bartol trains three undergraduate physics majors to take care of their three cosmic radiation laboratories - two in the Anarctica, and one in the Arctic region. The tour of duty for these hearty men of science is one year, during which time they collect data for "the most sophisticated scientific investigation in all Antarctica." One of these representatives has the distinction of manning a cosmic radiation station at Camp South Pole, civilization's closest outpost to the geographic South Pole. Changing levels of cosmic radiation are continuously monitored at these icebound stations, as well as at the Bartol Foundation itself. The data is used for astrophysical analysis as well as for manned-space exploration.

Other experiments undertaken at Bartol include an examination of the surface properties of metals. These are the properties which enable metals to act as catalysts in various chemical reactions. The techniques which are employed in this study (electron reflection off a coated metal surface) may hold the key to the analysis of enzyme-substrate interactions.

All research is funded either by government grants or by money bequeathed to the foundation on the instructions of the institution's founder, Henry W. Bartol. No classified information is obtained from any of their investigations.

Both Dr. Baldridge and Dr. Kent aired the hope that in the future the two institutions, main campus Jefferson and Bartol, will cooperate more extensively in intellectual endeavors. Dr. Kent invited all medical students and graduate students to look into the educational possibilities open to them at Bartol. If interested, let us know by dropping a note into the **Ariel** mailbox (Box #27) at Jefferson Hall.

School vs Education?

Book Review by Clifford Browning

Deschooling Society by Ivan Illich, Harper and Row Co.

Civilized society, as an aggregate of governmental, industrial, economic, religious, and educational institutions, is comprised of individuals who are free to varying degrees. Just as no man is completely free, no man is completely without freedom; and it is the difficulty of determining the extent of freedom; on the individual level which renders the assessment of justice in society at large so seemingly impossible. Historically, attempts at such analysis have never proved adequate, having as their end stage an ironclad ideology serving to narrowly define the class of those who were free, and the class of those who were not. The consequent movements, reforms, revolutionary programs, and mass mobilizations have wrought the large-scale destruction and renovation of institutions; but the more fundamental problem of individual freedom for all has remained unsolved.

An adequate concept of individual freedom is necessarily one which moves beyond simple economic, educational, political, and social categories. Though such factors may be seen to play an important role in a person's total development, it is not possible to judge him free merely on the basis of his wealth, knowledge, community influence, and prestige. In a theoretical way, society could be considered as a spectrum of individuals, those at one end enjoying a greater degree of freedom than those at the other. Each person's position on the spectrum would depend on the quality of his relation to the total environment, analyzed in terms of biological, political, social, and innumerable other distinct and overlapping categories. Life at the upper end is signified by health, productivity, creativity, accomplishment, responsibility, genuine growth, and control over the circumstances of one's own life including the satisfaction of basic needs and maintainence of a nutritive environment. Life at the other end is characterized by disease, retardation, ultimately death, and, in a more subtle way, aimlessness and the relentless need to "cope" with the environment.

Generally, those at the upper end of the spectrum are in control of society's dominant institutions within which they have grown and are growing. Their attitude toward the status quo is one of optimism and satisfaction. Their understanding of those at the other end, who tend to be poor, varies in sophistication from one man to another but usually is founded on some degree of cynicism and regarding either the inborn talent of the less successful or their own ability to do anything about the situation. Nevertheless, in explaining the disparity between the haves and the have-nots, the idea of individual freedom is usually not considered in sufficient depth.

In the United States, it is taken for granted that all men are free. The action that the institutional framework, within which one may may find a great deal of well-being, may in fact be entirely unsuited to another, is alien to our political minds. The question is further obscured by a tradition of benevolent, democratic intention which has become increasingly rhetorical in recent years. There has been much demagoguery, voter manipulation, high level planning and task forcing, and proliferation of bureaucracies, but little substantive change for the poor. The liberal assumption has been that what is good for those at the upper end of the spectrum is good for everyone. The plan of action has been the expansion of institutions and facilities of the same type which have all along eroded the freedom of certain people, thus keeping the lower end of the spectrum intact. Meanwhile, few have thought about the matter in terms of the individual's freedom and right to build his own institutions.

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The foregoing reflections are profoundly radical, and summarize the viewpoint from which Illich attacks not only the educational establishment in the U.S., but educational establishments in general. School is seen as the reproductive organ of society which serves to obscure and perpetuate all varieties of social imbalance.

Liberals have all along considered genuine education, as Plato did, to be an experience of liberation for the individual, leaving him with a heightened sense of himself and of his responsibility. Illich raises no objection to this point, but denies that what goes on in school nowadays is genuine education. A few manage to gain some degree of real education in school, but many others find the formalism and authoritarianism of the classroom too much to bear and end up either "dropping out of" or "suffering through" a basically intolerable and inhuman experience. The former group, as one might expect, tends to come from the upper end of the spectrum and emerge from school, diploma in hand, to assume control of society's major institutions including its educational machine. On the basis of their own experience, they rightly consider the value of education to be most high. The latter group do less well, yet continue on in life, often at the lower end and failing to understand their failure in school. Consequently they also subscribe to the conventional view that school is democracy's way of providing equal opportunity for all.

Thus the dominant misconceptions of not education, but of educational institutions has greatly contributed to the loss of individual development, erected false barriers, contaminated valid traditions of true learning, promoted formalism, and veiled incompetence. This has been accomplished at the expense of the young who have been "funneled" through rigidified curricula and denied the opportunity to grow in whatever direction is best for the individual.

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The poignancy of Illich's social criticism is heightened by his proposal of constructive alternatives. He believes that the technological resources of society should be used in a way to promote maximum flexibility and freedom for each person to gain access to those other persons and materials in which he is most interested and through which he could most benefit. "Educational funnels" would be replaced by "educational webs" which would become operative early in the person's life and permit constructive contact between individuals from all parts of the community. The effect would be a leavening (and in some respects a leveling) of society as a whole with the ultimate dissolution of class and the spectrum of freedom.

The growth of the industrial mode of production has proceeded with an insidious, uncontrolled development of centralized power with a concurrent degeneration of individual freedom. This has involved the proliferation of bureaucratic machinery which spends much of the time perpetuating itself and consolidating control at headquarters rather than putting people into contact with each other in a truly profitable way. Fruitful personal interaction, much more easily achieved in the preindustrial world, has given way to alienation and struggle in the context of needlessly overgrown institutions,. The new pattern would be characterized by decentralization, and all varieties of human endeavor would take forms other than the sprawling, overbearing institution. Interpersonal contact with the goal of growth and modest achievement within the community would replace man's mobilizations (legal and otherwise) and the concentration of power. People who think they know what is best for everyone else would be very uncomfortable and frustrated in a society which fostered a strong sense of individual responsibility and the subsequent right of each to divide his own associations and activities.

As one of many concrete examples, Illich offers new uses for one of the more recent and fascinating industrial toys--the computer. The computer has become for many an odious symbol of consolidated power over many in the hands of a few. The author's idea is to use computers as pathways between individuals, enabling them to find others with coincident interests and goals. Information about people would be used not to confine, exploit, and manipulate them according to corporate interests, but to promote fruitful contact. This would be especially desirable in the area of education where learning would become for all a person-to-person experience, reminiscent of the old master-apprentice relationship. This is something which is allowed only a few nowadays. Such computerized coordination would be the map of society's "educational web." It would reflect the norms of minimal institutional and administrative nonsense, and maximum opportunity for all.

The same framework could be used in forming small groups and associations with less educational perspectives. The French aristocrat, Alexis de Tocqueville spoke favorably in the mid-19th century of the ease with which Americans met and united with their neighbors to talk about common interests and solve common problems. This fine tradition, stiffled in the modern environment, is in need of revival.

Numerous objections are immediately raised by the reader who finds the author's proposals hopelessly "impractical" and far fetched. Illich anticipates many such objections and deals with them convincingly, demonstrating their origin to be in the reader's institutional mentality which he probably acquired in school.

It is painful to realize not that Illich is so impractical, but that his proposals are so elegantly practical in view of his truly democratic belief in the capability of every person to happily thrive and develop responsibility in the absence of restraint, manipulation, and environmental deprivation, often caused by other well-intentioned, yet socially myopic people. His insight into the nature of institutions, other forms of human association, and the individual himself is sufficient to undermine the cynicism and resignation which often grounds conservative hesitancy. At the same time his profound optimism regarding human potential cannot be denied by anyone believing in the intelligently guided correction of disorder, promotion of health, and integrity on all levels of life. His argument is to be considered by all interested in maintaining a genuinely just and democratic society.

Participate: Join The Don's Program

The Don's Program is a program geared to help high school students with their school work and with their post high school plans. The program started approximately four years ago and to my knowledge Cora Christian (graduated class of '71) was the founder. The first meeting for 1972-73 was held on December 9, and activities for this coming year were discussed. An ice skating part is scheduled for the 13th of January at Penn's Class of '23 Ice Skating Rink, and a raffle-ticket party is planned for sometime in February. Proceeds from both activities will go to scholarship awards given to the students in June. We are also trying to plan tours to various colleges that the students had expressed an interest in attending.

Attendance on the part of Jefferson students who are supposedly members was very poor at the first meeting. In fact, there were more high school students that Jefferson students present. The Don's Program needs more interested Jefferson student and employees to help and is open to all students be it medical students, graduate students or students from the undergraduate levels (The College of Allied Health Sciences and Nursing students).

Anita Robinson (Class of '74) was in charge of the program last year and was responsible for the success the program had last year. But due to her heavy schedule this year; I have taken over the program and I am a senior in the School of Medical Technology of the College of Allied Health Sciences. I feel that I am in the ideal situation to help the students because I find myself somewhat in the same position that senior high school studentsare in. Since this is my senior year, I am making plans to continue my education and am applying to various Medical Schools and Graduate Schools. (not being sure in what direction I **should** go) Although the program has been a success in the past, I would like to see the program--since this is their program. I would also like to increase the number of students in the program provided we get more Jefferson students willing to be interested in helping. At present, only two high schools are in the program and they are Overbrook High in West Philadelphia, and South Philadelphia High School. These high school students need to know someone is interested in what they have to say. They have some very creative and worthwhile ideas that should be expressed, developed, and utilized. We, also as young people, should be there to listen.

Hopefully by the time this is printed up in your newspaper the Don's Program will have a mailbox in the Mail Room and all those interested in the program can leave their inquiries in the mailbox, or they can contact Anita Robinson or myself.

If you have any more questions concerning the Don's Program for your article, I can be reached at the Nurses' Residence during the school week. The phone number is WA 3-2060 and I am in room 233. Thank you for your interest.

Very sincerely yours,
Vivian D. Fleming

From The Commons Office

HOCKEY FANS!!!!

There are a limited supply of discount tickets available for some Penn Games for Jeffersonian participation. All games are played at the Class of 23' rink located on Walnut above 31st Street.

TICKETS ARE $1.00.

Here is a list of available games:
Tuesday, January 23, Providence, 7:30 P.M.
Tuesday, January 30th, Princeton, 8:30 P.M.
Saturday, February 3rd, Brown, 8:30 P.M.
Saturday, February 17th, Dartmouth, 8:30 P.M.

TICKETS AVAILABLE IN M-63

BIG FIVE BASKETBALL

Tickets are available on a first come, first serve basis for several dates. All tickets are $2.00 each. All Big 5 Games are played at the Palestra–33rd below Walnut Street; doubleheaders begin at 7:05 P.M.

Here is a list of available games:
Saturday, January 20th, 7:05 P.M., St. Joe's-Fairfield Penn-Manhattan.
Thursday, February 1st, 8:05 P.M., Villanova-Notre Dame.
Wednesday, February 7th, 7:05 P.M., LaSalle-Canisius, Temple-Penn State.
Wednesday, February 14th, 7:05 P.M., Villanova-Canisius, Temple-George Washington.

TICKETS AVAILABLE IN M-63

SENIOR RED CROSS

A senior lifesaving course will begin February 12th. The course will be offered each Monday evening 6:00-9:00 P.M. The course is free to all Commons Members, however, there is a $10.00 fee to all others.

Joan Golman will be the instructor.

Interested applicants may sign up at the issue counter in Jefferson Hall or call 829-7949.

Hit the Slopes:

Join the National Student Ski Association

Are you still paying full price for skiing?

Now a nation-wide organization of skiing college students has reduced the price of this once expensive sport. The Student Ski Association, in conjunction with over 150 ski areas, offers significantly reduced prices on lift tickets, ski lessons and ski equipment rentals. Similar in concept to the airlines' youth fare cards, the program is open to college, professional and graduate students.

The Student Ski Association was founded and is directed by Kim Chaffee, a Harvard and Berkeley graduate, whose brother and sister are former Olympic skiers. Last year, during its fourth season, over 35,000 college students joined the organization.

Membership entitles students to savings of up to 50 per cent on lift tickets, lessons and rentals during the week. On Saturday Sunday and holidays the program brings at least a $1 savings on lift tickets. In addition to these savings, the members also receive a monthly underground ski magazine, **The Student Skier**, along with the annual **Poor Howard's College Guide to Skiing**. Membership is $5. There is no age limit, and no limit to the number of times the reduced rate membership may be used at any of the more than 150 participating ski areas.

Such prestigious ski resorts as: Mt. Snow, Waterville Valley, Sugarloaf and Mt. Tom in New England, Aspen Highlands, Jackson Hole, Park West, Taos, Squaw Valley and Kirkwood Meadows in the West and Big Powderhorn, Mt. Telemark, Schuss Mountain and Sugarloaf in the Midwest, grant Student Ski Association members low student rates.

SSA is recognized as the leading student group in the skiing and works closely with various divisions of the United States Ski Association. Schlitz Beer, a supporter of NASTAR (a national Standard race for recreational skiers), and the National Ski Patrol is the national sponsor of the Student Ski Association. This year SSA will be hosting a series of large intercollegiate ski festivals in the Rockies and Sierras and in the Midwest.

The $5 membership is offered with a money back guarantee through campus ski clubs, bookstores and by mail at any of the three regional offices: SSA East, 21 Rosemarie Drive, Seekonk, Mass. 02771; SSA Midwest, 2529 Gross Point Road, Evanston, Ill. 60201; SSA West, Box 1138, Incline Village, Nevada 89450.

Ariel To Present Health Care Plans

by Mark Dembert

The concept of inadequate health care is, putting it bluntly, "old hat." The basic problems are self-evident; statistics which compare, for example, infant mortality and (adult) longevity in the U.S. with that of other countries only serve to drive the points home with greater force. Pros and cons, good points and bad points, dollars and cents have been and are being, discussed **ad infinitum**. It has now boiled down to the painful fact that a solution is needed--and fast. The "Monster" known as the health care industry is growing to gigantic sizes--in 1970, it was the second largest industry in the U.S., turning over $67.2 billion, or 6.9 per cent of the Gross National Product.

Five main health care plan proposals have attracted much attention recently. Thus, as an extra service in medical education for Ariel's readers, we will present serially in the next 5 issues these five "Proposals." Each proposal will be broken down as concerns the following features: General Approach, Coverage, Benefit Structure, Financing, Administration, Quality Control, Delivery System, Health Resources Development, and Endorsements and Primary Sponsors.

We hope that this will give valuable insight into those interested with this very serious problem. For quick and easy reading, Ariel also recommends the article, "Health Care: *Supply, Demand, and Politics,*" **Time** magazine, June 7, 1971 (p. 86-93).

Happy Vacation